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EXAMINER

FAN, CHIEH M

ART UNIT

PAPER NUMBER

2634

DATE MAILED: 06/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/513,962

Applicant(s)

MCDERMOTT ET AL.

Examiner

Chieh M Fan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,9-13 and 20 is/are rejected.
- 7) ☒ Claim(s) 2-8 and 14-19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 February 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:
“only one transmitter” in line 27 of page 6 should be changed to – only one of the transmitters --;
“Fig. 1” in line 2 of page 11 should be -- Fig. 2 --; and
“negative frequency envelope 632” in line 18 of page 11 should be -- negative frequency envelope 642’ --.
Appropriate correction is required.

Claim Objections

2. Claims 3 and 5-8 objected to because of the following informalities:
Regarding claim 3, “a decoded message value” in line 2 should be changed to – the decoded message sample --.
Regarding claim 5, it is suggested changing “a Fast Fourier Transform (FFT)” in line 6 to – a Fast Fourier Transform (FFT) element – or – a Fast Fourier Transform (FFT) processor –, because claim 5 is an apparatus claim and a FFT is a mathematical operation, not an apparatus.

Regarding claim 6, "the Fast Fourier Transform (FFT)" in line 2 should be changed to – the Fast Fourier Transform (FFT) element – or – the Fast Fourier Transform (FFT) processor –.

Regarding claim 7, "the Fast Fourier Transform (FFT)" in line 2 should be changed to – the Fast Fourier Transform (FFT) element – or – the Fast Fourier Transform (FFT) processor –.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 9 and 20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification never teaches that the communication system comprises a satellite. The examiner can only find the word "satellite" in the title of the copending applications (see page 3). The applicants are reminded that the teaching in the

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copending applications cannot be considered as part of the disclosure. Further, the inventive entity of the copending application is different from the instant application.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 recites the limitation "the delay means" in line 2. There is insufficient antecedent basis for this limitation in the claim. It appears that claim 10 should depend on claim 2.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical

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Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

8. Claim 1, 11 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Kamgar et al. (U.S. Patent No. 6,205,167, "Kamgar" hereinafter).

Regarding claim 1, Kamgar discloses a communications system, i.e., a CDMA system, for receiving a plurality of messages from a plurality of transmitters, comprising:

a receiver that is configured to receive a composite signal that comprises the plurality of messages from the plurality of transmitters, each message having a transmitter code-phase relative to a code-phase of the receiver, each transmitter code-phase being independent of the code-phase of the receiver (col. 1, lines 33-36 and 39-41), and

a message discriminator that is configured to discriminate at least one message from the plurality of messages based on the transmitter code-phase corresponding to the at least one message (col. 1, lines 39-54).

Regarding claim 11, Kamgar discloses a communications system, i.e., a CDMA system, comprising:

a plurality of transmitters that are configured red to communicate messages to a receiver, each transmitter of the plurality of transmitters being configured to operate substantially autonomously, and independent of the receiver, and each transmitter

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being configured to communicate its message to the receiver using substantially identical transmission parameters as each other transmitter, including using a common spreading-code within a common communications channel (col. 1, lines 31-38), and

wherein each message has an associated code-phase that is independent of the receiver, and independent of each other message, thereby facilitating a discrimination of the messages at the receiver based on different code-phases associated with different messages (col. 1, lines 39-54, also note that the unique phase offset associated with each transmitter is independent of the receiver because the receiver never sends a control signal to control the phase offset).

Regarding claim 13, Kamgar teaches a method of communication comprising: receiving a composite signal that comprises a plurality of messages from a plurality of transmitters, each message having a transmitter code-phase relative to a code-phase of the receiver, each transmitter code-phase being independent of the code-phase of the receiver (col. 1, lines 33-36 and 39-41), and

discriminating at least one message from the plurality of messages based on the transmitter code-phase corresponding to the at least one message (col. 1, lines 39-54).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kamgar et al. (U.S. Patent No. 6,205,167, "Kamgar" hereinafter) in view of Gilhousen et al. (U.S. Patent No. 4,901,307, "Gilhousen" hereinafter).

Kamgar teaches the claimed invention (see the rationale applied to claim 1 above) except a satellite between the transmitters and the receiver.

Gilhousen teaches a communication system employing a satellite-based repeater to provide communication links among a large number of mobile or fixed, and local or remote users (col. 8, lines 12-15). Gilhousen also teaches that satellite systems are required to economically provide service to low density, rural or remote areas (col. 3, lines 46-48).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a satellite to provide the composite signal to the receiver so as to economically provide CDMA service to low density, rural or remote areas.

11. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kamgar et al. (U.S. Patent No. 6,205,167, "Kamgar" hereinafter) in view of Secord et al. (U.S. Patent No. 6,373,831, "Secord" hereinafter).

Kamgar teaches the claimed invention (see the rationale applied to claim 1 above) including an encoder (see 114 or 116 in Fig. 1) for encoding the message before

spreading and transmitting the message, but does not specifically teach that the encoder is an error correction encoder.

However, the use of an error correction code is well known in the art to improve the quality and reliability of communication. Secord teaches a CDMA system comprises an error correction encoder (10 in Fig. 1) to encode the message before spreading and transmitting the message. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the error correction encoder of Secord in place of the encoder of Kamgar, so as to improve the quality and reliability of communication.

Allowable Subject Matter

12. Claims 2-8 and 14-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 2-8 are allowable over the prior art of record because the prior art of record does not teach or suggest a delay element, a decoder and a threshold detector as recited in claim 2. Claims 14-19 are allowable over the prior art of record because the prior art of record does not teach or suggest the sampling, decoding, determining and comparing steps recited in claim 14.

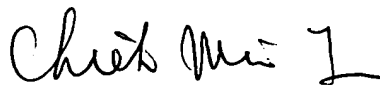
Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sato (U.S. Patent No. 6,574,205), Kamgar et al. (U.S. Patent No. 6,549,559), Antonio et al. (U.S. Patent No. 6,339,611) and Kim (U.S. Patent No. 6,185,245) all teach a CDMA system.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chieh M Fan whose telephone number is (703) 305-0198. The examiner can normally be reached on Monday-Friday 8:00AM-5:30PM, Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on (703) 305-4714. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4750.


Chieh M Fan
Examiner
Art Unit 2634

cmf
June 18, 2003